

Application No.: 10/781174
Amendment dated: October 28, 2008
Reply to Office action of July 28, 2008

REMARKS/ARGUMENTS

The rejection under 35 U.S.C. §112, is based on the assertion that the specification lacks "written description" for the new limitations introduced by amendment on May 12, 2008. The limitations, which have been modified in this amendment, and their support are as follows:

Claims 1 and 8:

"a controller. . . programmed . . . to regulate, over an interval of time, the rate at which the set point temperature is reduced in dependence on the internal temperature of said food article . . . beginning with a time at which the internal temperature of said food article reaches a predetermined level" (claim 1)

"controller, programmed . . . to regulate the operation of said impeller over an interval of time, reducing said set point as said internal temperature increases, at a rate depending on the internal temperature of said food article as sensed by said second temperature sensor, said interval of time beginning with a time at which the internal temperature of said food article reaches a predetermined level" (claim 8)

Support for the above limitations in claims 1 and 8 is found in paragraph 0049 and FIG. 7.

Claims 7 and 14:

"Cooking apparatus according to claim 1, in which, when said enclosure is closed and fuel on said fuel support is

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in combustion, the only opening in said enclosure through which substantial amounts of external air can flow to said fuel supporting area is said inlet opening."

Support for the above limitation is found in paragraph 0016, paragraph 0030 (page 8 lines 4-7), paragraph 0033 (page 9, lines 27-31), paragraph 0034 (page 10, lines 7-11) and FIG. 1, and . The words "and fuel on said fuel support is in combustion" was added to take into account the fact that there can be exhaust openings in the upper part of the cooking chamber as explained in paragraph 0034. Because of pressure exerted by the impeller during combustion, or because of convection during intervals of impeller inactivity, external air does not enter the enclosure through the exhaust openings during combustion.

Claims 22 and 24:

"in which said predetermined level of the temperature of said food article is a temperature below said target temperature and differs by the same predetermined amount from the target temperature as set by said manually operable adjuster for any setting of said manually operable adjuster."

Support for the above limitation is found in paragraph 0047 (page 14, lines 16 - 19), the equation in paragraph 0049, and paragraph 0050 (page 15, lines 12 - 19).

Claim 24 has been cancelled, obviating the second rejection under §112.

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The limitations of claim 2 have been incorporated into claim 1, and the limitations of claim 9 have been incorporated into claim 8.

To avoid the problem that a recitation of intended use does not distinguish an invention from the prior art unless it results in a structural difference, claims 1 and 8 now define the controller as a "programmed controller", programmed to perform certain recited operations. These modifications to the claims are supported by paragraph 0049.

Finally, the limitation imported from claims 2 and 9 into claims 1 and 8, as modified reads:

"said controller . . . is programmed to cause said set point temperature gradually to approach a temperature level exceeding said target temperature by a predetermined amount and to hold the temperature of the atmosphere within said enclosure at least at said temperature level until fuel on said fuel support is no longer able to maintain said temperature level."

This limitation is supported by the equation in paragraph 0048, by the description in paragraphs 0052 and 0053, and by FIG. 7. Note particularly that, in FIG. 7, the pit temperature curve 124 gradually approaches a level that is approximately 30° above the meat target temperature of 180°, and stays at that level until the charcoal is nearly completely burned and no longer able to maintain the 210° pit temperature.

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The claims have been rejected under §103 on Blevins, Wollich, Maahs, and Kibourian. Insofar as it is relevant to claims 2 and 9 (now cancelled and incorporated into claims 1 and 8, respectively), Wollich has been relied upon for its disclosure of a sensor for sensing internal temperature of food and reducing a set point temperature at a rate depending on the internal temperature of the food. Maahs has been relied upon for a teaching of a controller which regulates the rate at which the set point temperature is reduced down to a holding temperature by varying the heat output produced by a heat source. Blevins and Kibourian both disclose solid fuel cooking apparatus with controllable fans.

Whether or not it would have been obvious to incorporate a control based on Wollich and/or Maahs into a solid fuel cooking apparatus such as that of Blevins or Kibourian, the result would not correspond to claims 1 or 8, as amended, for several reasons.

First, as pointed out previously, Wollich's heating element is not operated during the gradual reduction of oven temperature. Second, Maahs appears to operate in much the same way as Wollich. Neither of the two excerpts from Maahs cited by the Examiner (col. 1, lines 22-31, and col. 2, line 66 to col. 3, line 8) says that the rate of reduction of the temperature set point is affected by varying the heat output of a heat source. As pointed out by Maahs, at the end of the cooking cycle, both switches A and B open. Heating element 2

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remains in the circuit, but is under the control of thermostat 104. It appears that the switch within thermostat 104 would remain open until the sensed temperature reaches the holding level, and would then close to energize heating element 50b and thereafter cycle to maintain the holding temperature. That being so, there would be no reduction of the set point "at a rate depending on the internal temperature of said food article as sensed by said second temperature sensor."

A more important distinction between the invention and Wollich and Maahs is that neither Wollich nor Maahs shows a control which is "programmed to cause said set point temperature gradually to approach a temperature level exceeding said target temperature by a predetermined amount and to hold the temperature of the atmosphere within said enclosure at least at said temperature level" Wollich's oven holding temperature of 138°F is below the FDA's recommended target temperature of and 145°F for roasts and steaks and 165°F for poultry. See <http://www.cfsan.fda.gov~dms/fttcook.html>. Maahs, who also reduces the oven temperature to a "holding level," presumably utilizes a holding temperature similar to that of Wollich.

Holtkamp, which was cited but not applied, appears to be more pertinent than either Wollich or Maahs. However, Holtkamp also lacks any teaching of a controller "programmed to cause said set point temperature gradually to approach a temperature level exceeding said target temperature by a

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predetermined amount and to hold said the temperature of the atmosphere within said enclosure at least at said temperature level until fuel on said fuel support is no longer able to maintain said temperature level." . . ." As seen in Holtkamp's FIG. 3, the meat temperature A and the oven temperature B become equal. Thus, even if Holtkamp's control were incorporated into a solid fuel burning cooking apparatus having a controllable fan, the result would not correspond to the cooking apparatus as defined in the present versions of claims 1 and 8 because the pit set point temperature level would not exceed the food target temperature by a predetermined amount until the fuel is no longer able to maintain said temperature level.

New claims 25 and 26, which are dependent on claims 1 and 8, respectively, still further distinguish the invention from the prior art by specifying that the predetermined amount by which said "temperature level" exceeds the target temperature is a fixed amount independent of the target temperature. In other words, in the embodiment described, for example, the fixed amount is 30° whether the target temperature is 180° or some other target temperature.

In summary, the limitation in the last paragraph of each of claims 1 and 8 defines a clear difference between the invention as a whole and the prior art, including the more pertinent prior art not relied upon in the rejection. The prior art simply does not demonstrate that it would have been

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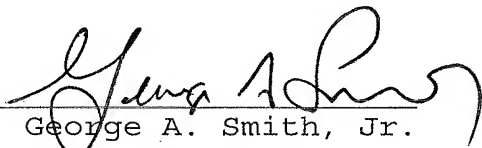
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obvious, whether in a conventional oven or in a solid fuel burning cooker, to decrease oven temperature gradually, at a rate controlled by internal food temperature, to a temperature limit that is above a target food temperature by a predetermined amount.

Accordingly the applicants respectfully request reconsideration and allowance.

Respectfully submitted,
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